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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/823,127      | 03/30/2001  | Bent S. Jensen       | 42390P10683         | 6836             |

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EXAMINER

LEZAK, ARRIENNE M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2143

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/823,127

Applicant(s)

JENSEN, BENT S.

Examiner

Arrienne M. Lezak

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 9, 10, 16 & 21-23 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Pub. US 2002/0150100 A1 to White.

3. Regarding Claims 1-5, 7, 9, 10, 12, 13, 16-18, 21-25 & 27, White discloses a network system, method and apparatus for adaptive frame fragmentation, (Abstract; Figs. 1-13; paragraphs - #0013-0015: & Claims 1-37) comprising:

- a sending unit to transmit a first frame fragment, the first frame fragment including a first (payload – entire frame per pending Claim 10) data segment, extracted from a low priority frame and a first frame fragmentation control information appended to the end of the first data segment, (paragraphs - #0030-0038 & 0042-0052); and
- the sending unit to transmit a second frame fragment after transmitting the first frame fragment, the second frame fragment including a high priority frame and a second frame fragmentation control information appended to the

- end of the high priority frame, (per pending Claims 2 & 22), (paragraphs - #0030-0038 & 0042-0052); and
  - the sending unit to transmit a third frame fragment after transmitting the second frame fragment, the third frame fragment including a second (payload) data segment extracted from the low priority frame and a third frame fragmentation control information appended to the end of the second data segment, (per pending Claims 3 & 23), (paragraphs - #0030-0038 & 0042-0052); and
  - a receiving unit to receive the first, second and third frame fragments transmitted by the sending unit, (paragraphs - #0030-0038 & 0042-0052).
4. Regarding Claims 4, 5, 7, 12, 13, 17, 18, 24, 25 & 27, White discloses a network system, method and apparatus for adaptive frame fragmentation incorporating a frame relay protocol, (paragraph #0043), comprising frames and frame fragments, (paragraphs #0043-0044), a first frame fragmentation indicator, (per pending Claims 4, 12, 17 & 24), a last frame fragment indicator, (per pending Claims 7, 15, 17 & 27), a frame fragment sequence number, (per pending Claims 5, 13, 18 & 25), (paragraphs #0045-0046, 0054 & 0055).
5. Therefore, this reference may reasonably be read to teach or describe every element or claim limitation of Claims 1-5, 7, 9, 10, 12, 13, 16-18, 21-25 & 27.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4-8, 11-15, 17-20 & 24-28 are further rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Pub. US 2002/0150100 A1 to White in view of US Patent 5,828,835 to Isfeld.

8. Regarding Claims 4-8, 12-15, 17-20 & 24-28, the teachings of White are relied upon as noted herein. As noted above, White discloses a network system, method and apparatus for adaptive frame fragmentation incorporating a frame relay protocol, (paragraph #0043), comprising frames and frame fragments, (paragraphs #0043-0044), a first frame fragmentation indicator, (per pending Claims 4, 12, 17 & 24), a last frame fragment indicator, (per pending Claims 7, 15, 17 & 27), a frame fragment sequence number, (per pending Claims 5, 13, 18 & 25), (paragraphs #0045-0046, 0054 & 0055).

9. Though White clearly teaches frame fragmentation, White does not specifically enumerate the inclusion of a channel number, (per pending Claims 6, 14, 19 & 26), and an extension indicator, (per pending Claims 8, 15, 20 & 28). Isfeld Clearly teaches priority-based message fragmentation routing process wherein the message fragments clearly include a first frame fragmentation indicator, (per pending Claims 4, 12, 17 & 24), a last frame fragment indicator, (per pending Claims 7, 15, 17 & 27), a frame fragment sequence number, (per pending Claims 5, 13, 18 & 25) and a channel number, (per

pending Claims 6, 14, 19 & 26), (Isfeld - Figs. 13-17; Col. 27, lines 62-67; Col. 28; & Col. 29, lines 1-35).

10. The motivation to incorporate the Isfeld message fragment into the White priority-based message fragmentation method is found within White which enumerates a need for a technique which would minimize the latency and jitter exhibited by frame-based communication systems, (White – paragraph # 0012), wherein knowledge of the channel number is obviously necessary to the proper transmission and receipt of data. Moreover, Examiner notes that the inclusion of channel information in the data packet was well known in the art at the time of invention by Applicant. Additionally, Examiner notes that regarding an extension indicator, (per pending Claims 8, 15, 20 & 28), White enumerates the reservation of the seven least significant bits of the first octet to ensure all fragment headers are distinguished from and other framing headers and/or flags which may be introduced during processing, (White – paragraph #0047), as well as an FCS frame for purposes of CRC error detection, (White – paragraph #0043), and Isfeld enumerates a 4-bit field for software specific command list entries, (Isfeld – Fig. 15 & Col. 25, lines 31-39), wherein either portion of the frame could obviously be used to extend or add fields to the frame fragment control information. Thus Claims 4-8, 12-15, 17-20 & 24-28 are found to be unpatentable over the combined teachings of White in view of Isfeld.

11. Regarding Claim 11, the teachings of White and Isfeld are relied upon as noted herein. As noted above, White discloses a network system, method and apparatus for adaptive frame fragmentation incorporating a frame relay protocol, (paragraph #0043),

comprising frames and frame fragments, (paragraphs #0043-0044), and payload data, (paragraph - #043), wherein it would have been obvious for said payload data to include a data segment extracted from a frame, as said frame may be any number of bytes in length, and wherein within a frame fragmentation apparatus and method, it would have been obvious to divide up large portions of data into smaller portions for faster and more reliable relay of the same. Thus Claim 11 is found to be unpatentable over the combined teachings of White in view of Isfeld.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US Patent 5,497,371 to Ellis;

US Patent Pub. No. US 2002/0087716 A1 to Mustafa; and

US Patent US 6,172,990 B1 to Deb.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arrienne M. Lezak whose telephone number is (571)-272-3916. The examiner can normally be reached on M-F 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571)-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Arrienne M. Lezak  
Examiner  
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